Public Notice

Applicant: Windsor Ridge Joint Venture

Date:
Published: November 29, 2006
Expires: December 28, 2006

U.S. Army Corps of Engineers
Buffalo District **CELRB-TD-R**

In Reply Refer To:
RE: 95-976-143(2) **Section:** NY 404

Application for Permit under Authority of Section 404 of the Clean Water Act (33 U.S.C. 1344).

The Windsor Ridge Partners, LLC, 2635 Millersport Highway, Getzville, New York, propose to place fill into approximately 3.82 acres of Federally regulated wetlands in association with the construction of the Windsor Ridge South Residential Subdivision. The project consists of the following:

a. Approximately 3.82 acre of Federally regulated wetland will be filled for the construction of roads, appurtenances and residential lots associated with the 287 lot subdivision. The proposed impacts include the following:

1) Wetland SBC - fill of 0.62 acre: Riparian corridor of Slate Bottom Creek, scrub/shrub and emergent habitat. This fill will extend Chestnut Corner across Slate Bottom Creek to access the property.

2) Wetland D1 - fill of 0.72 acre: Wooded wetland to be filled for road/residential lot development.

3) Wetland SBC and unnamed tributary to Slate Bottom Creek - fill of 0.43 acre: Scrub/emergent wetland which is part of the overall Slate Bottom Creek wetland complex. These fills constitute road crossings for Worthington Lane and eventual access to Bowen Road to the east of the project site.

4) Wetland C - fill of 0.37 acre: Scrub/shrub and old field habitat to be filled for road crossing and sub-lot development.

5) Wetland A-F - fill of 0.76 acre: Scrub/shrub and old field habitat to be filled for road crossing and sublot development.

6) Wetland B - fill of 0.51 acre: Old field/wet meadow habitat to be filled for sublot development.

7) Linear wetland/unnamed tributary to Slate Bottom Creek - fill of 0.35 acre (approximately 1400 lineal feet):

Previously modified stream channel/agricultural drainageway to be filled for road crossings and sublot development.

8) Unnamed tributary to Slate Bottom Creek - fill of 0.06 acre (approximately 225 lineal feet): Previously modified drainageway to be filled for Manchester Lane access to the property from Brunck Road.

9) Slate Bottom Creek - culverted crossing (16'x 81') in northeastern portion of the project: Section of previously straightened stream to be culverted to allow Manchester Lane access to the property from Brunck Road.

b. As mitigation for the proposed impacts to waters of the United States, the applicant proposes to construct approximately 5.01 acres of mixed wetland habitat on the project site. The mitigation wetlands will include approximately 0.57 acre of wet meadow, 3.18 acre of scrub/shrub, 0.72 acre of emergent and 0.55 acre of robust marsh habitats. The mitigation wetland will be constructed adjacent to Slate Bottom Creek in the extreme western portion of the site. Including proposed upland berms, the total proposed mitigation area is 5.95 acres.

c. In addition to the proposed wetland construction, the applicant proposes to place protective covenants on all remaining wetlands on the site (approximately 17.6 acres). The covenants will include, to the maximum extent practicable, the 100 foot adjacent area for wetlands also regulated by the New York State Department of Environmental Conservation (NYSDEC). These wetlands are high quality areas associated with the riparian and flood plain corridors of Slate Bottom Creek.

The proposed project has been modified several times during the design process. Previous plans were changed due to the expansion of on-site wetlands and the identification of wetlands regulated by the NYSDEC. In addition, previous proposals to outlet to Hall Road were abandoned, as Hall Road is located within the Town of Elma, which objected to the use of its road for this project. As a result of these objections, the applicant purchased approximately 54.9 additional acres (the Samulski-Castello parcels) on the east side of the subdivision in order to be able to access Bowen and Brunk Roads.

The wetlands on the original project site were delineated in 2001-2002 based upon Corps and NYSDEC site visits. These wetland boundaries remain valid through October, 2007. The wetland boundaries on the Samulski-Castello parcels were delineated in 2003 and field verified in 2005 and 2006. These wetland boundaries will remain valid through July, 2011.

The applicant's stated purpose is to construct a residential subdivision.

Location and details of the above described work are shown on the attached maps and drawings.

Questions pertaining to the work described in this notice should be directed to Steven V. Metivier, who can be contacted by calling (716) 879-4314, or by e-mail at: steven.v.metivier@usace.army.mil

The following authorization(s) may be required for this project:

Water Quality Certification (or waiver thereof) from the New York State Department of Environmental Conservation.

There are no registered historic properties or properties listed as being eligible for inclusion in the National Register of Historic Places that will be affected by this project.

In addition, available evidence indicates that the proposed work will not affect a species proposed or designated by the U.S. Department of the Interior as threatened or endangered, nor will it affect the critical habitat of any such species.

This notice is promulgated in accordance with Title 33, Code of Federal Regulations, parts 320-330. Any interested party desiring to comment on the work described herein may do so by submitting their comments, in writing, so that they are received no later than 4:30 pm on the expiration date of this notice.

Comments should be sent to the U. S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, New York 14207, and should be marked to the attention of Steven V. Metivier, or by e-mail at: steven.v.metivier@usace.army.mil. A lack of response will be interpreted as meaning that there is no objection to the work as proposed.

Comments submitted in response to this notice will be fully considered during the public interest review for this permit application. All written comments will be made a part of the administrative record which is available to the public under the Freedom of Information Act. The Administrative Record, or portions thereof may also be posted on a Corps of Engineers internet web site. Due to resource limitations, this office will normally not acknowledge the receipt of comments or respond to individual letters of comment.

Any individual may request a public hearing by submitting their written request, stating the specific reasons for holding a hearing, in the same manner and time period as other comments.

Public hearings for the purposes of the Corps permit program will be held when the District Commander determines he can obtain additional information, not available in written comments, that will aid him in the decision making process for this application. A Corps hearing is not a source of information for the general public, nor a forum for the resolution of issues or conflicting points of view (witnesses are not sworn and cross examination is prohibited). Hearings will not be held to obtain information on issues unrelated to the work requiring a permit, such as property ownership, neighbor disputes, or the behavior or actions of the public or applicant on upland property not regulated by the Department of the Army. Information obtained from a public hearing is given no greater weight than that obtained from written comments. Therefore, you should not fail to make timely written comments because a hearing might be held.

The decision to approve or deny this permit request will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the

preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

SIGNED

Thomas C. Switala
Chief, Regulatory Branch

NOTICE TO POSTMASTER: It is requested that this notice be posted continuously and conspicuously for 30 days from the date of issuance.

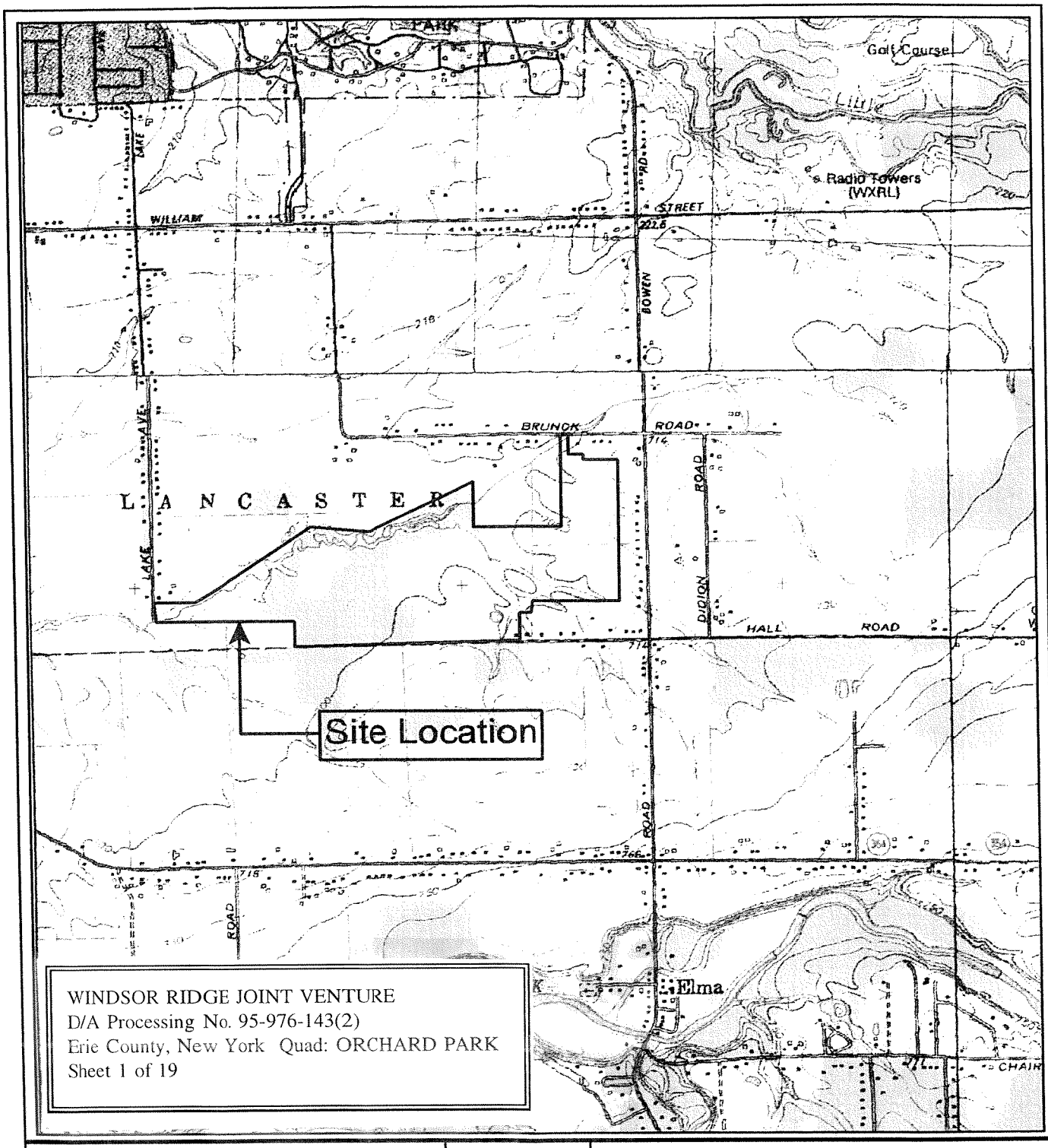

Figure 1.
USGS Quadrangle Map

Orchard Park, NY
Quadrangle
Scale 1:24000

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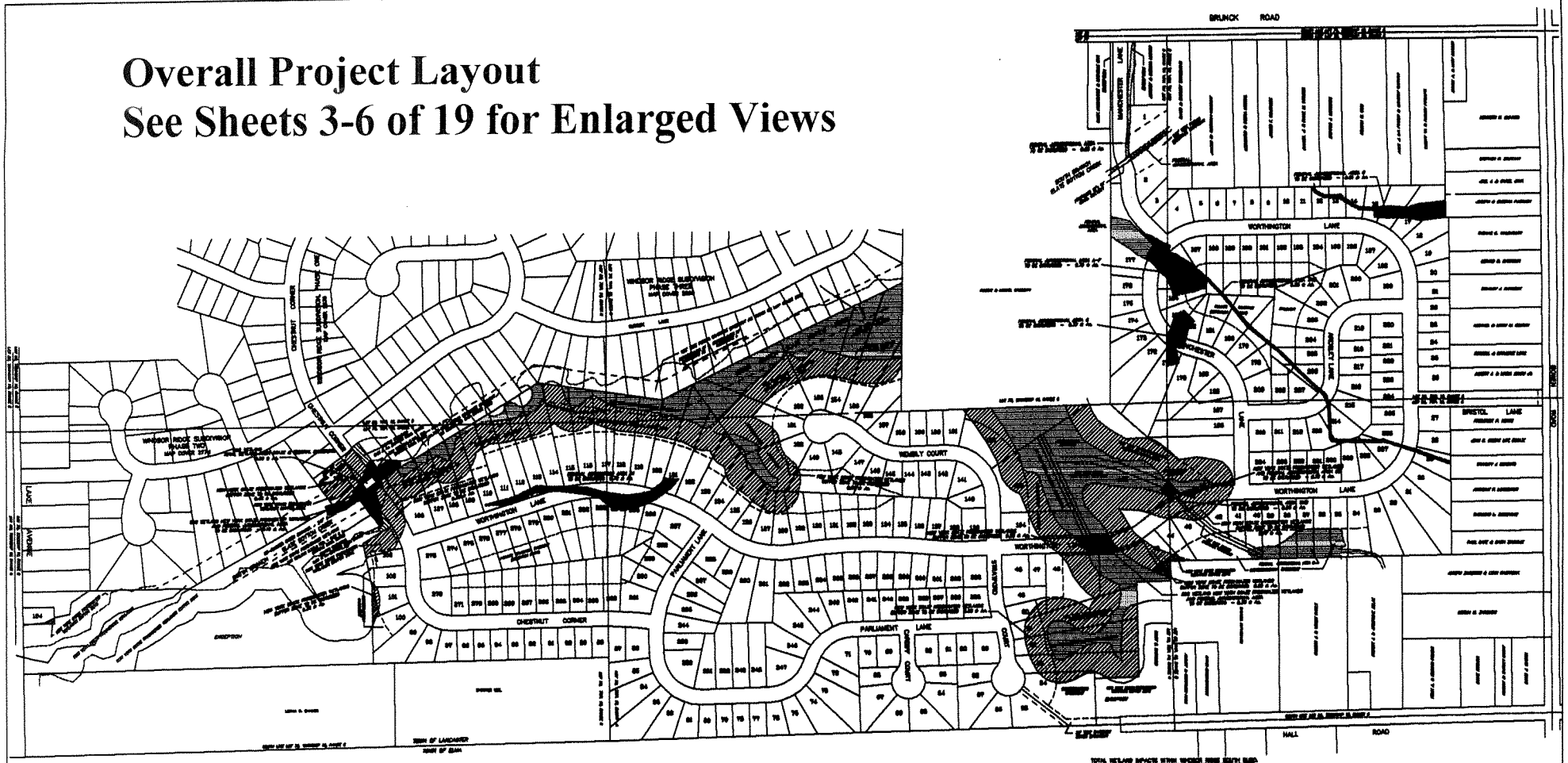
Windsor Ridge South
Subdivision Location
Windsor Ridge Partners

Town of Orchard Park
Erie County, New York

Overall Project Layout
See Sheets 3-6 of 19 for Enlarged Views



WINDSOR RIDGE JOINT VENTURE
D/A Processing No. 95-976-143(2)
Erie County, New York Quad: ORCHARD PARK
Sheet 2 of 19

PRELIMINARY PLAT OF

Windsor Ridge South Subdivision

TOWN OF LANCASTER, ERIE COUNTY, NEW YORK

BEING PART OF LOTS 69, 70, 77, 78, 79 AND 80, TOWNSHIP 10, RANGE 8
BUFFALO CREEK RESERVATION

GRAPHIC SCALE

WINDSOR RIDGE JOINT VENTURE
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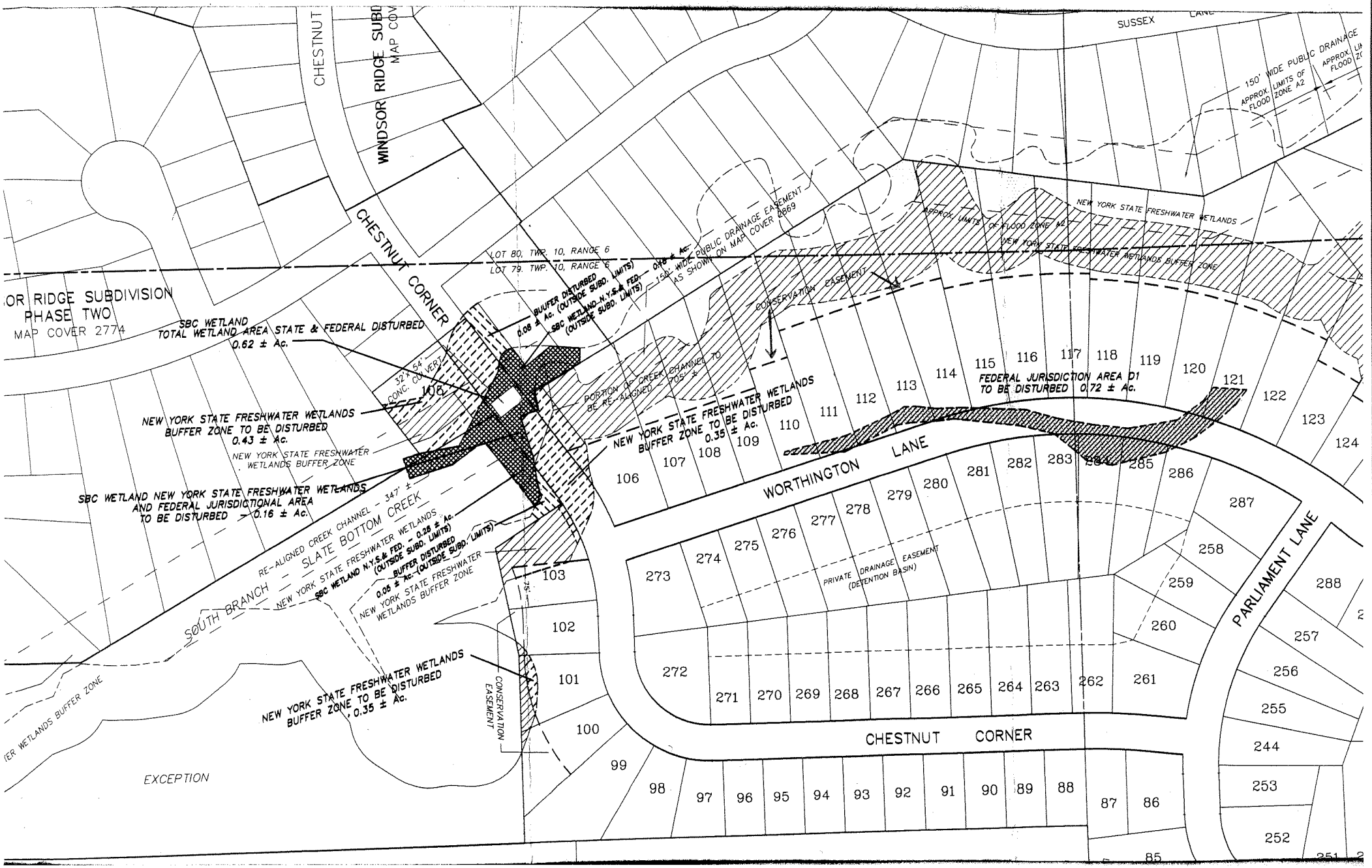

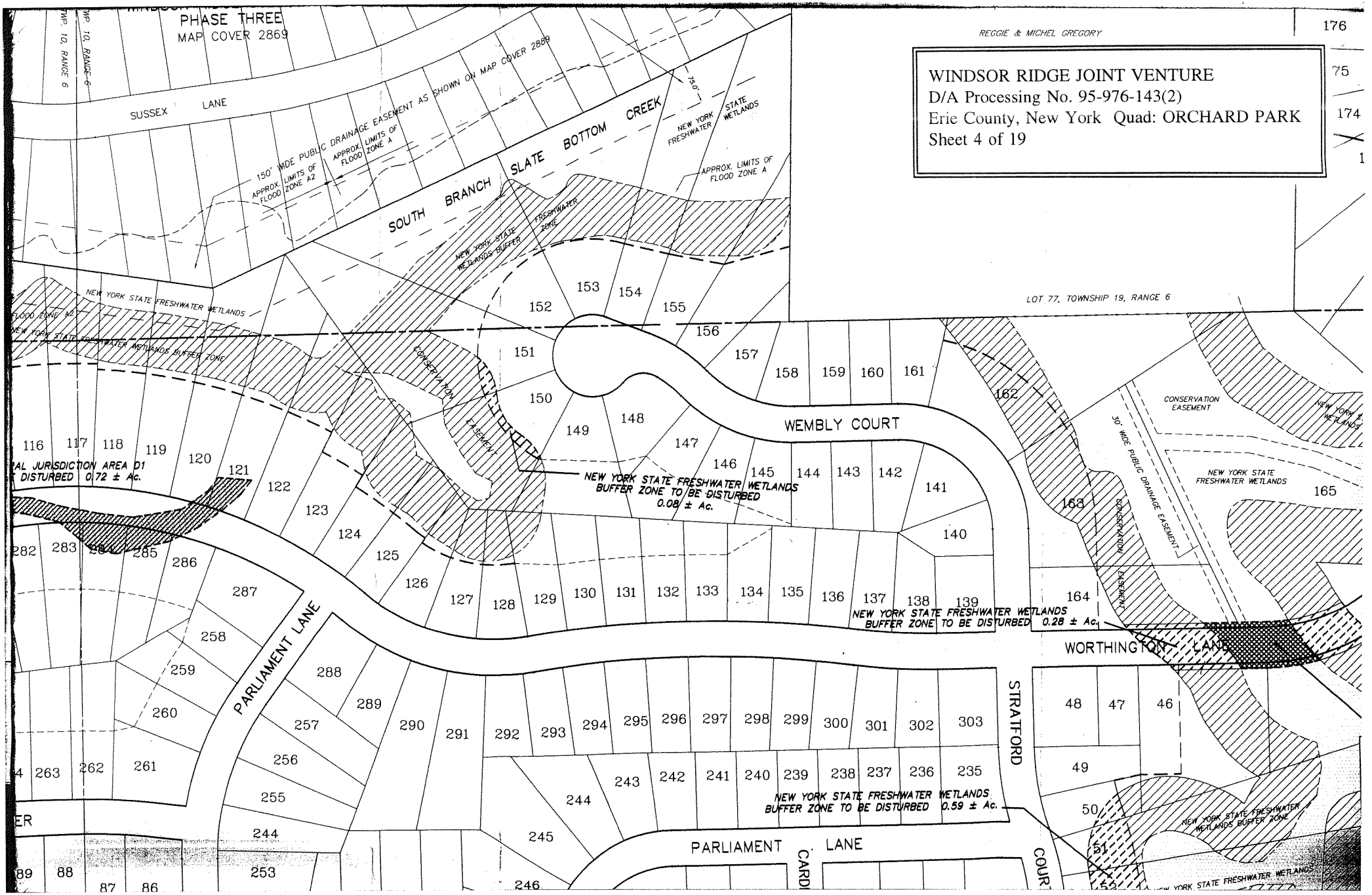

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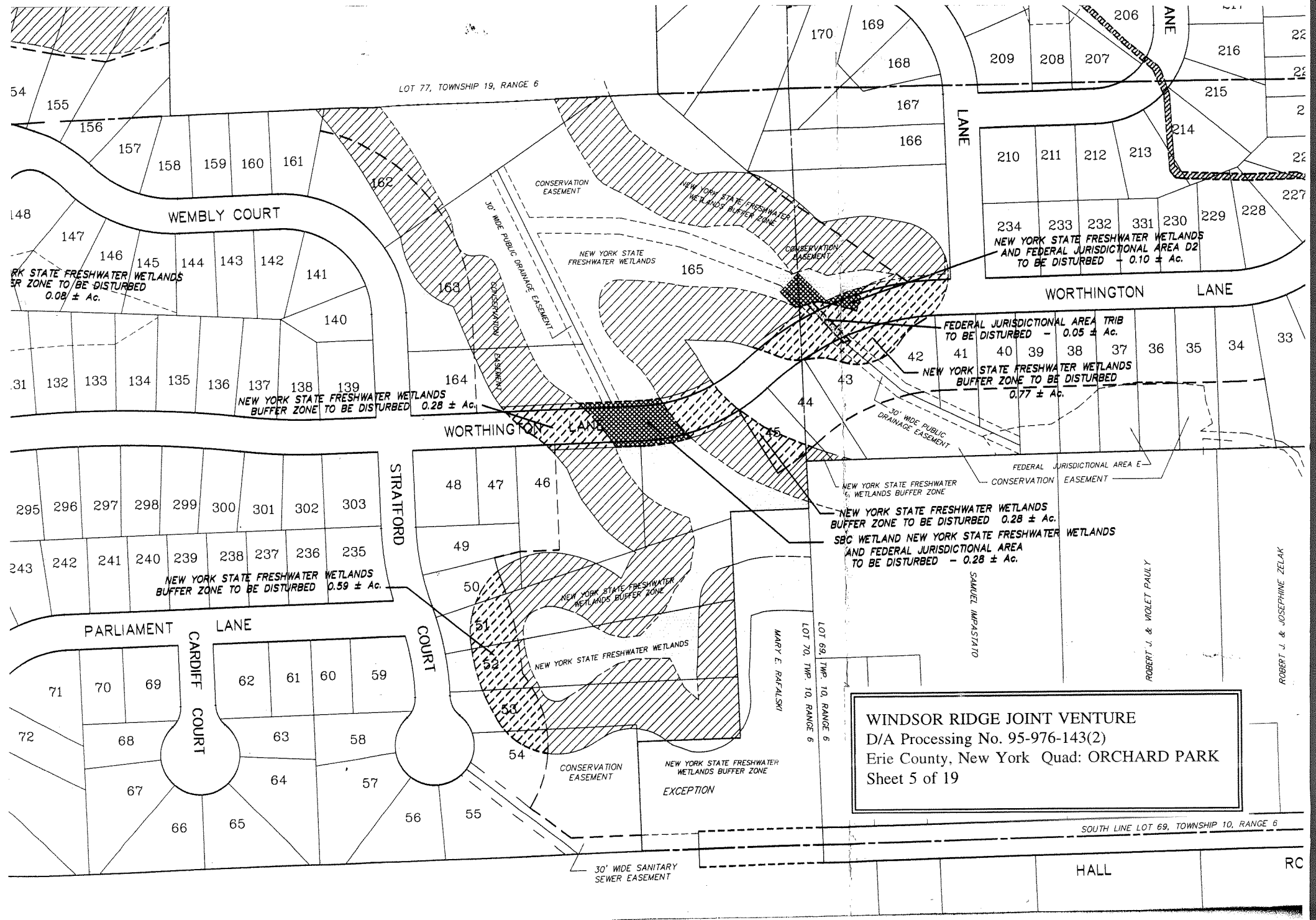

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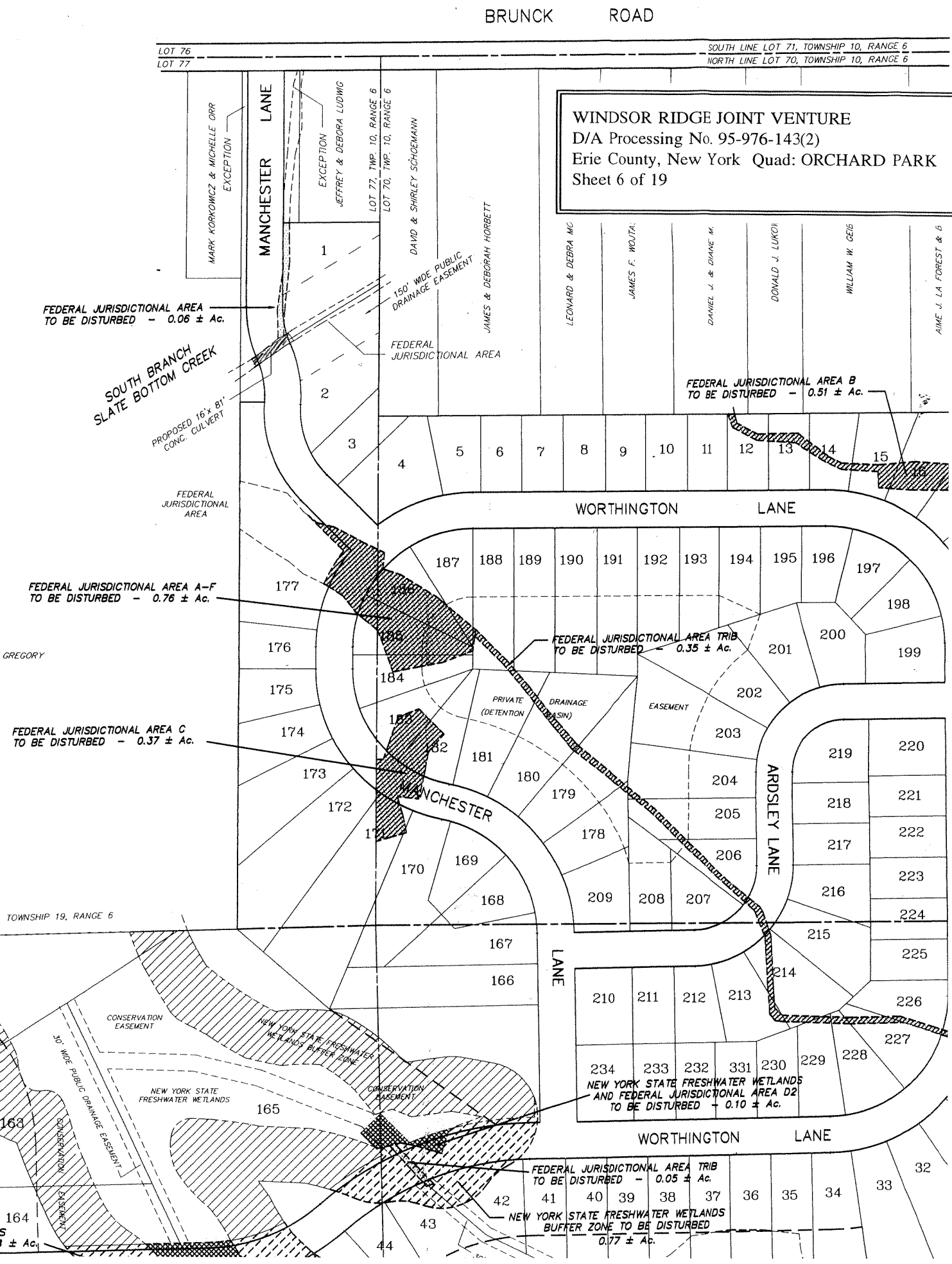
BRUNCK ROAD
LOT 76
LOT 77
SOUTH LINE LOT 71, TOWNSHIP 10, RANGE 6
NORTH LINE LOT 70, TOWNSHIP 10, RANGE 6
WINDSOR RIDGE JOINT VENTURE
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MANCHESTER LANE
MARK KORKOWICZ & MICHELLE ORR EXCEPTION
EXCEPTION JEFFREY & DEBORA LUDWIG
LOT 77, TWP. 10, RANGE 6
LOT 70, TWP. 10, RANGE 6
DAVID & SHIRLEY SCHOEMANN
JAMES & DEBORAH HORBETT
LEONARD & DEBRA MC
JAMES F. WOJTA
DANIEL J. & DIANE M.
DONALD J. LUKOW
WILLIAM W. GEIB
AIME J. LA FOREST & B
150' WIDE PUBLIC DRAINAGE EASEMENT
FEDERAL JURISDICTIONAL AREA TO BE DISTURBED – 0.06 ± Ac.
FEDERAL JURISDICTIONAL AREA
SOUTH BRANCH SLATE BOTTOM CREEK
PROPOSED 16'x 81' CONC. CULVERT
FEDERAL JURISDICTIONAL AREA B TO BE DISTURBED – 0.51 ± Ac.
WORTHINGTON LANE
FEDERAL JURISDICTIONAL AREA A–F TO BE DISTURBED – 0.76 ± Ac.
FEDERAL JURISDICTIONAL AREA TRIB TO BE DISTURBED – 0.35 ± Ac.
PRIVATE (DETENTION BASIN)
DRAINAGE EASEMENT
FEDERAL JURISDICTIONAL AREA C TO BE DISTURBED – 0.37 ± Ac.
MANCHESTER
ARDSLEY LANE
GREGORY
TOWNSHIP 19, RANGE 6
CONSERVATION EASEMENT
NEW YORK STATE FRESHWATER WETLANDS BUFFER ZONE
30' WIDE PUBLIC DRAINAGE EASEMENT
NEW YORK STATE FRESHWATER WETLANDS
NEW YORK STATE FRESHWATER WETLANDS AND FEDERAL JURISDICTIONAL AREA D2 TO BE DISTURBED – 0.10 ± Ac.
WORTHINGTON LANE
FEDERAL JURISDICTIONAL AREA TRIB TO BE DISTURBED – 0.05 ± Ac.
NEW YORK STATE FRESHWATER WETLANDS BUFFER ZONE TO BE DISTURBED 0.77 ± Ac.

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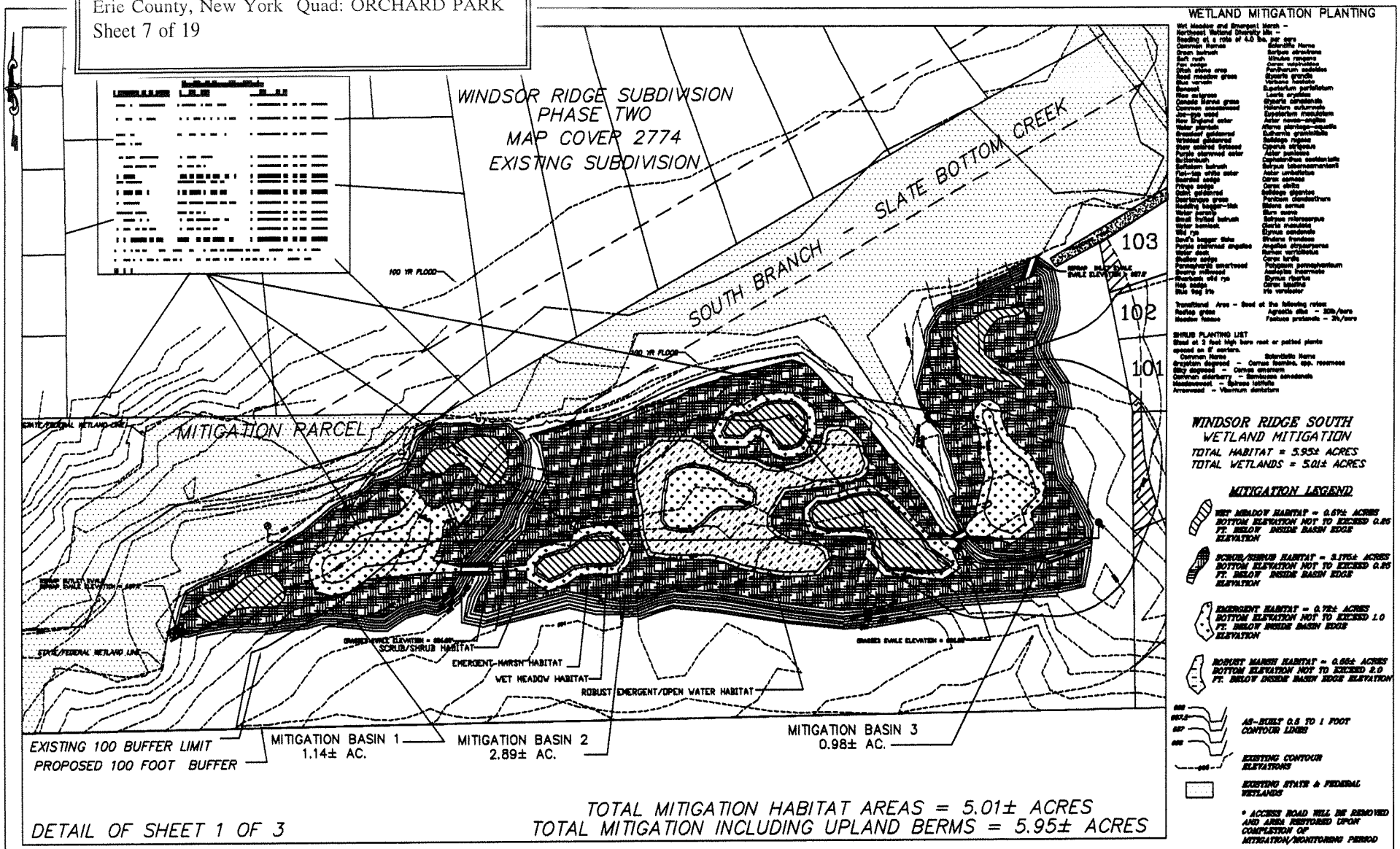
Overall Mitigation Layout
See Sheets 8-11 of 19 for Enlarged Views



WETLAND MITIGATION PLANTING

WINDSOR RIDGE SOUTH
WETLAND MITIGATION
TOTAL HABITAT = 5.95± ACRES
TOTAL WETLANDS = 5.01± ACRES

MITIGATION LEGEND

WET MEADOW HABITAT = 0.67± ACRES
BOTTOM ELEVATION NOT TO EXCEED 0.85 FT. BELOW INSIDE BASIN EDGE ELEVATION

SCRUB/SHRUB HABITAT = 3.175± ACRES
BOTTOM ELEVATION NOT TO EXCEED 0.85 FT. BELOW INSIDE BASIN EDGE ELEVATION

EMERGENT HABITAT = 0.72± ACRES
BOTTOM ELEVATION NOT TO EXCEED 1.0 FT. BELOW INSIDE BASIN EDGE ELEVATION

ROBUST MARSH HABITAT = 0.65± ACRES
BOTTOM ELEVATION NOT TO EXCEED 2.0 FT. BELOW INSIDE BASIN EDGE ELEVATION

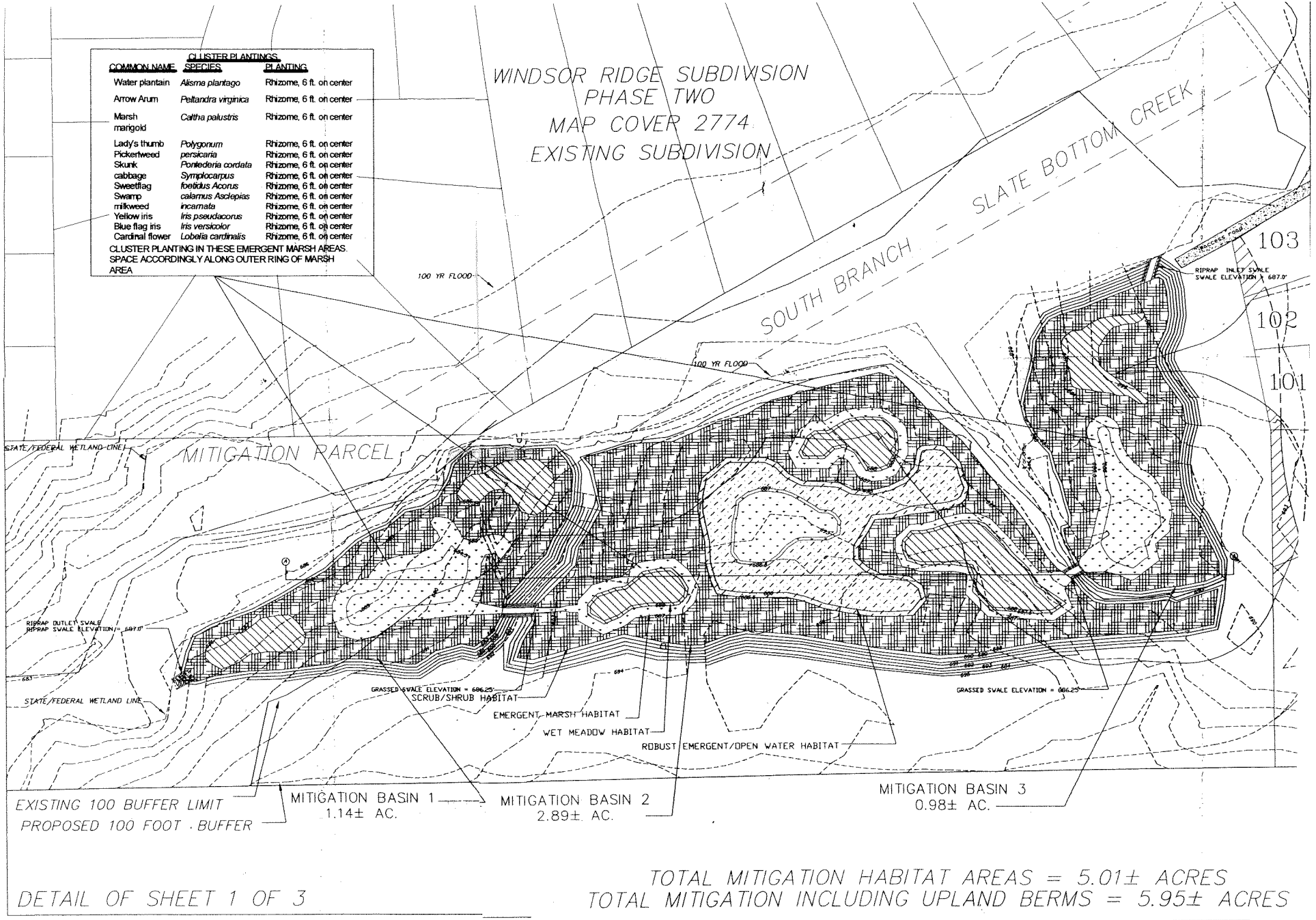
AS-BUILT 0.5 TO 1 FOOT CONTOUR LINES

EXISTING CONTOUR ELEVATIONS

EXISTING STATE & FEDERAL WETLANDS

* ACCESS ROAD WILL BE REMOVED AND AREA RESTORED UPON COMPLETION OF MITIGATION/MONITORING PERIOD

DETAIL SHEET SCALE 1" = 50'	WINDSOR RIDGE SOUTH SUBDIVISION LAKE AVENUE AND BOWEN ROAD WETLAND MITIGATION/CREATION PLAN	TOWN OF LANCASTER ERIE COUNTY, NEW YORK	Wilson Environmental Technologies, Inc. 2805 Wehrle Drive, Suite 2, Williamsville, NY 14221 (716) 565-3000 Fax (716) 565-9994 e-mail - don@wilsonenvironmental.com Job No. 325.004.1 | 11/10/05 | DWG SHEET 2 OF 9



DETAIL OF SHEET 1 OF 3

TOTAL MITIGATION HABITAT AREAS = 5.01± ACRES
TOTAL MITIGATION INCLUDING UPLAND BERMS = 5.95± ACRES

WINDSOR RIDGE JOINT VENTURE
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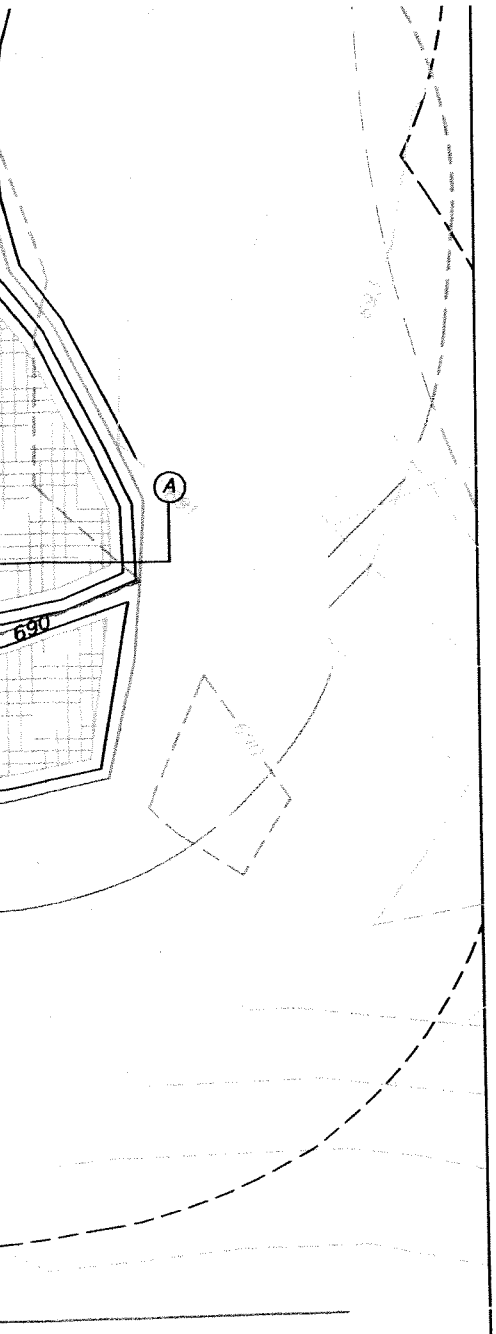

WINDSOR RIDGE SOUTH
WETLAND MITIGATION

TOTAL HABITAT = 5.95± ACRES
TOTAL WETLANDS = 5.01± ACRES

MITIGATION LEGEND

WET MEADOW HABITAT = 0.57± ACRES
BOTTOM ELEVATION NOT TO EXCEED 0.25 FT. BELOW INSIDE BASIN EDGE ELEVATION

SCRUB/SHRUB HABITAT = 3.175± ACRES
BOTTOM ELEVATION NOT TO EXCEED 0.25 FT. BELOW INSIDE BASIN EDGE ELEVATION

EMERGENT HABITAT = 0.72± ACRES
BOTTOM ELEVATION NOT TO EXCEED 1.0 FT. BELOW INSIDE BASIN EDGE ELEVATION

ROBUST MARSH HABITAT = 0.55± ACRES
BOTTOM ELEVATION NOT TO EXCEED 2.0 FT. BELOW INSIDE BASIN EDGE ELEVATION

688
687.5
687
686

AS-BUILT 0.5 TO 1 FOOT CONTOUR LINES

EXISTING CONTOUR ELEVATIONS

EXISTING STATE & FEDERAL WETLANDS

* ACCESS ROAD WILL BE REMOVED AND AREA RESTORED UPON COMPLETION OF MITIGATION/MONITORING PERIOD

RE
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WINDSOR RIDGE JOINT VENTURE
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Wilson Environmental Technologies, Inc.
2805 Wehrle Drive, Suite 2, Williamsville, NY 14221

CLUSTER PLANTINGS

COMMON NAME	SPECIES	PLANTING
Water plantain	*Alisma plantago*	Rhizome, 6 ft. on center
Arrow Arum	*Peltandra virginica*	Rhizome, 6 ft. on center
Marsh marigold	*Caltha palustris*	Rhizome, 6 ft. on center
Lady's thumb	*Polygonum*	Rhizome, 6 ft. on center
Pickerlweed	*persicaria*	Rhizome, 6 ft. on center
Skunk	*Pontederia cordata*	Rhizome, 6 ft. on center
cabbage	*Symplocarpus*	Rhizome, 6 ft. on center
Sweetflag	*foetidus Acorus*	Rhizome, 6 ft. on center
Swamp	*calamus Asclepias*	Rhizome, 6 ft. on center
milkweed	*incarnata*	Rhizome, 6 ft. on center
Yellow iris	*Iris pseudacorus*	Rhizome, 6 ft. on center
Blue flag iris	*Iris versicolor*	Rhizome, 6 ft. on center
Cardinal flower	*Lobelia cardinalis*	Rhizome, 6 ft. on center

CLUSTER PLANTING IN THESE EMERGENT MARSH AREAS. SPACE ACCORDINGLY ALONG OUTER RING OF MARSH AREA

100

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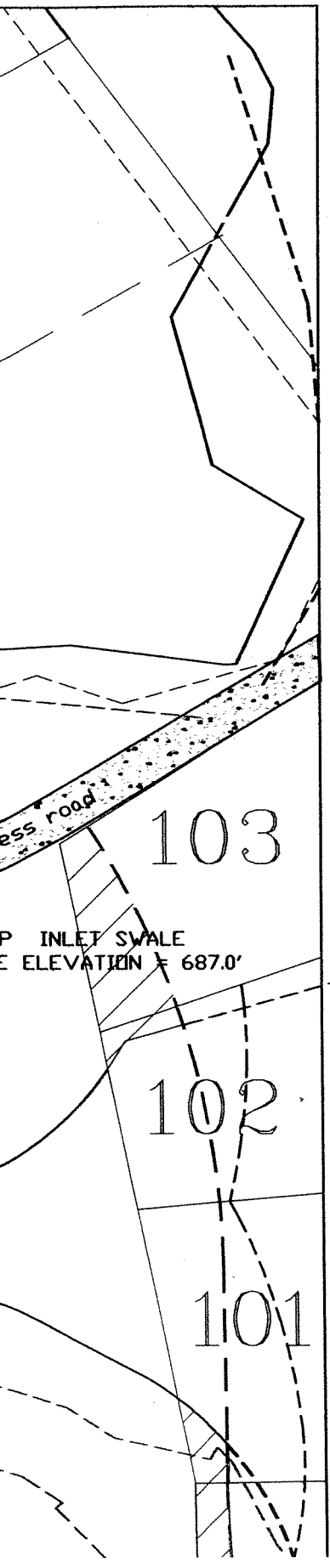
ERAL WETLAND LINE

WETLAND MITIGATION PLANTING



Wet Meadow and Emergent Marsh –
Northeast Wetland Diversity Mix –
Seeding at a rate of 4.0 lbs. per acre

Common Names	Scientific Name
Green bulrush	Scripus atrovirens
Soft rush	Minulus rengens
Fox sedge	Carex vulpinoidea
Ditch stone crop	Penthorum sedoides
Reed meadow grass	Glyceria grandis
Blue vervain	Verbena hastata
Boneset	Eupatorium perfoliatum
Rice cutgrass	Leeris oryzides
Canada Manna grass	Glyceria canadensis
Common sneezeweed	Helenium autumnale
Joe–pye weed	Eupatorium maculatum
New England aster	Aster novae–angliae
Water plantain	Alisma plantago–aquatia
Grassleaf goldenrod	Euthamia graminifolia
Wrinkled goldenrod	Solidago rugosa
Staw colored flatseed	Cyperus strigosus
Purple stemmed aster	Aster puniceus
Buttonbush	Cephalanthus occidentalis
Softstem bulrush	Scirpus tabernaemontanii
Flat–top white aster	Aster umbellatus
Bearded sedge	Carex comosa
Fringe sedge	Carex cinita
Gaint goldenrod	Solidago gigantea
Deertongue grass	Panicum clandestinum
Nodding beggar–tick	Bidens cernua
Water parsnip	Sium suave
Small fruited bulrush	Scirpus microcarpus
Water hemlock	Cicuta maculata
Wild rye	Elymus candensis
Devil's beggar ticks	Bindens frondosa
Purple stemmed angelica	Angelica atrpourpurea
Water dock	Rumex verricillatus
Shallow sedge	Carex lurdia
Pennsylvania smartweed	Polygoum pennsylvanicum
Swamp milkweed	Asclepias incarmata
Riverbank wild rye	Elymus riparius
Hop sedge	Carex lupulina
Blue flag iris	Iris versicolor

Transitional Area – Seed at the following rates:

Redtop grass	Agrostis alba – 20lb/acre
Meadow fescue	Festuca pratensis – 3lb/acre

SHRUB PLANTING LIST
Sized at 2 foot high bare root or potted plants spaced on 8' centers.

Common Name	Scientistic Name
Graystem dogwood –	Cornus foemina, spp. racemosa
Silky dogwood –	Cornus amomum
Common elderberry –	Sambucus canadensis
Meadowsweet –	Spiraea latifolia
Arrowwood –	Viburnum dentatum

WINDSOR RIDGE JOINT VENTURE
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WINDSOR RID

WINDSOR RIDGE JOINT VENTURE
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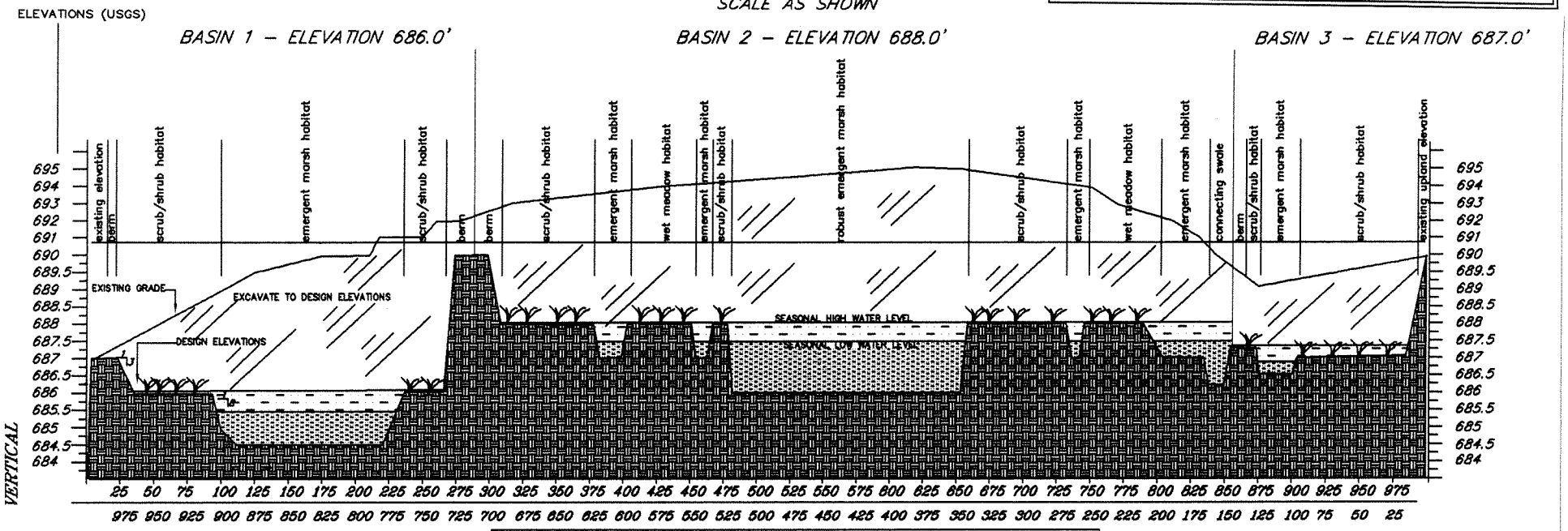
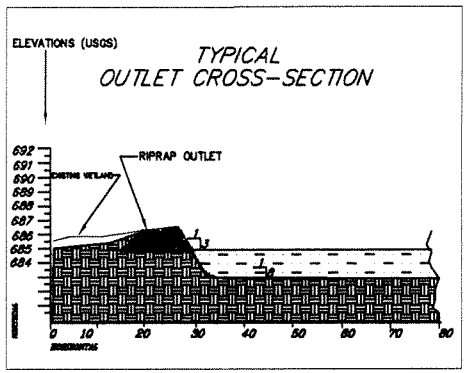
A – A CROSS–SECTION

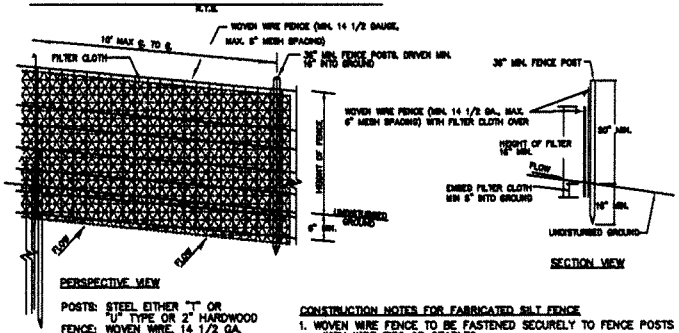
SCALE AS SHOWN



DETAIL



SILTATION FENCE DETAIL



POSTS: STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD
FENCE: WOVEN WIRE, 14 1/2 GA. 6" MAX. MESH OPENING
FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

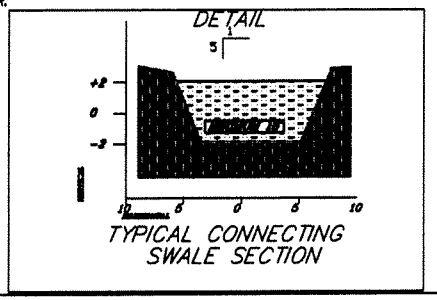
CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE.

CONSTRUCTION NOTES:

1. ALL EXCAVATED AREAS TO BE OVER EXCAVATED BY 8" TO BE REPLACED WITH TOPSOIL.
2. FINAL GRADES SHALL BE IRREGULAR AS DIRECTED BY WETLANDS CONSULTANT.
3. SILT FENCING TO BE INSTALLED IN ACCORDANCE WITH PLAN ALONG EXISTING WETLAND EDGE.
4. SEEDING TO BE DONE IN ACCORDANCE WITH SHEET 2, PLAN VIEW CONSTRUCTION DRAWINGS.
5. ALL APPROPRIATE EROSION CONTROL METHODS TO BE APPLIED DURING CONSTRUCTION.
6. AREAS OF PLANTING IN ACCORDANCE WITH DESIGN PLAN AS SHOWN ON SHEET 2 OF 3 WETLAND MITIGATION PLAN VIEW AND IN COORDINATION WITH WETLANDS CONSULTANT.
7. DO NOT REPLACE TOPSOIL INTO MITIGATION AREA IF CONSTRUCTION IS TO TAKE PLACE LATER THAN OCTOBER OR LATER IN THE YEAR. REPLACE TOPSOILS DURING THE NEXT CONSTRUCTION SEASON WITH PLANTING AND SEEDING TO FOLLOW IMMEDIATELY THEREAFTER.

DETAIL



CROSS SECTIONALS

WINDSOR RIDGE SOUTH SUBDIVISION
WETLAND CREATION PLAN

TOWN OF LANCASTER
ERIE COUNTY, NEW YORK

Wilson Environmental Technologies, Inc.
2805 Wehrle Drive, Suite 2, Williamsville, NY 14221
(716) 565-3000 Fax (716) 565-9994
e-mail – dan@wilsonenvironmental.com

Job No. 325.004.1	12/10/05	DWG SHEET 3 OF 3

V. WETLAND MITIGATION CONCEPT PLAN

A. Mitigation Overview

The USACE has stated for other mitigation project that an acceptable mitigation ratio for impacts resulting from the placement of fill material into the jurisdictional areas would be a ratio of 1.5 :1. The creation will provide an emergent component to an otherwise seasonally saturated wetland. The emergent area will provide amphibian habitat, in addition to providing an increase wading bird habitat.

WET proposes to create a total of approximately 2.00± acres of varied wetland complexes containing areas of wet meadow/scrub/shrub and emergent marsh habitat.

HABITAT/ ELEVATION RANGE	WATER DEPTH (Max.)	VEGETATION COVER
Scrub/shrub - Wet Meadow 1.0' Below Inside Basin Edge Elevation	0.5 feet	See Plant Species List
Emergent Marsh 1.0 to 1.5' Below Inside Basin Edge Elevation	1.0 feet	See Plant Species List
Robust Emergent Marsh 1.5 to 2.0' Below Inside Basin Edge Elevation	2.0 feet	See Plant Species List

B. MITIGATION CONSTRUCTION SPECIFICATIONS

WET is proposing the creation of the varied wetland habitat through the excavation of an upland area within a mixed shrubland and old field habitat. Three basins will be constructed; connected by an shallow excavated grass swale. All three Basins will be excavated in juxtaposition to the existing State and Federal wetland. Basin 1 will utilize the existing flood plain wetland elevation as an added source of hydrology through an excavated channel located at the northerly, upstream end of the basin. Basin 1 will be connected to Basin 2 via the shallow grass lined connecting swale as will Basin 3 be connected to Basin 2 in the same manner. Basin 3 will outlet to the flood plain wetland via an overflow channel. All three Basins will be excavated to the design elevation not exceeding 2.0 feet in final depth below the inside edge of the excavated basin. Inlet and outlet elevations are designed with riprap to allow for future adjustment throughout the monitoring period.

Each Basin will be excavated to achieve the required depth. The excavation is

intended to intercept the seasonally high groundwater in addition to drawing seasonal highwater flow hydrology from the existing flood plain wetland during periods of high stream flows. Hydrology will be maintained through the compaction of soils to severely limit the rate of permeability of the constructed wetland in an already somewhat poorly drained soil, and through excavating a channel to allow direct flow from the existing flood plain wetland during seasonally high flows and storm events. An overflow outlet channel will be provided to the downstream side of the tributary. The Basins are designed to fill by excavating the elevation levels with the existing flood plain wetland elevations allowing spillover into these areas. As the basins fill, the outlet can be adjusted to prevent back-flow to the flood plain wetland. A saturated soil condition is expected to be maintained for a significant portion of the growing season within the upper reaches of the seasonal high water table.

OBJECTIVE

The wetland creation complex will be created by the excavation of soil material to the necessary ground elevation within the creation area. The construction of the replacement habitat will serve to provide nesting, rearing and forage wading birds, amphibians and American woodcock, amphibians and reptiles.

The constructed mitigation plan would incorporate an irregularly shaped boundary/margin sloping gradually to incorporate a wet meadow-scrub-shrub, and emergent habitat. The margins of the boundary would have a shallow grade (1 vertical to 8 horizontal) grading to lower elevation. Using shallow excavation, as indicated on the construction plan (see Sheets 3 of 3), a constructed depression will create the mitigation habitat.

Earth work for the mitigation area is expected to begin in July/August of the construction year. Weather constraints may alter the start date somewhat. Excess subsoil will be stockpiled in an upland area within the site or utilized in the construction of the subdivision. Excess material will be removed from the site at a later time. Access to the mitigation area will be via the subdivision. At such time, the proper permits will be obtained from the Town of Lancaster to remove the subsoil. Until such time, the stockpiled subsoil will be surrounded by silt screen material keyed 6 inches into the ground to prevent soil erosion runoff to the surrounding area.

Topsoil material will be spread over the growth areas of the mitigation areas to a depth of not less than eight inches. The topsoil material will be the material stripped during the construction of the mitigation project. The topsoil will be monitored to insure it is free of subsoil, purple loosestrife and/or common reed grass seed, or rhizomes.

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PROPOSED PROTOCOL FOR ESTABLISHMENT OF MITIGATION COMPLEX

1) Remove all vegetation with a bulldozer or similar equipment from the mitigation creation area as noted on the mitigation construction drawings.

2) Strip any available topsoil from this area and stockpile for re-use as a seedbed in the areas to be excavated. No stockpiling of topsoil or subsoil will occur within wetland areas but will be confined to an upland area of the site. **Topsoil should not be mixed with subsoil. Topsoil must be free of Purple Loosestrife (*Lythrum salicaria*) or/and Common Reed Grass *(Phragmites australis*) species. It any of these invasive species are found within the area of topsoil stripping other clean sources of topsoil must be used.** Equipment used in the construction of the mitigation area must be steam cleaned prior to dispatching on the mitigation site. If the equipment used in the mitigation construction leaves the site for use on any other excavation operation the equipment must be steam cleaned prior to its return to the mitigation site.

3) Excavate to planned elevation and contour as indicated on the plan profile map to be provided. Any shrub and tree species existing along the margin of the planned construction will be avoided by maintaining a proper construction distance. All areas shall be rough graded to the contours shown on Sheet 2 and 3 of 3 of the attached mitigation construction drawings. The wetland construction area must be over-excavated to accommodate the re-application of 8 inches of topsoil. The planting zone will be planted with the appropriate wetland species (see below).

4) Over-excavate planned elevations and re-apply a minimum of 8 inches of topsoil over the entire growth area for the purpose of planting shrub and wetland species. Topsoil all disturbed areas and sees with Transitional Zone Seed Mixture (see Subsection F of this report).

5) **SHRUBS**: Shrubs planted within the mitigation area, will be protected from man-induced disturbance, such as mowing or pruning to allow for establishment and growth of the shrub species. Native shrubs species will be planted (sized approximately 2 -3 feet high bare root or container stock when planted) in staggered rows with plants and rows on 4 - foot centers throughout the area designated on the construction plan. The shrubs will be planted along the out edge of the mitigation area and will infringe into the wet meadow/emergent marsh zone of the wetland in limited numbers as to not create a dominance of shrub species in that zone but as seen in a natural setting. Shrubs shall be planted in late September but no later than November 15 of the construction season. Grading and topsoil dressing

must occur prior to planting. The planting shall be mulched with chopped hay. The planting methods shall be done in accordance with nursery specifications for proper root coverage. The roots must be covered but not the stems. The total planting area must be watered within 12 hours of planting to set in roots and eliminate dry air pockets in the soil. The entire area must be protected from vehicular traffic including ATV's.

SHRUB SPECIES	***SCIENTIFIC NAME***
Graystem dogwood (FAC)	*Cornus foemina. spp. racemosa*
Silky dogwood (FACW)	*Cornus amomum*
Pussy willow (FACW)	*Salix discolor*
Common elderberry (FAC)	*Sambucus canadensis*
Meadowsweet (FACW)	*Spiraea latifolia*
Arrowwood (FACW)	*Viburnum recognitum*

6) **SEEDING:** Seed material shall be hydroseeded at the recommended application rate of 4.0 lbs/acre.

A. Prepare seeding area by scarifying soil with a York rake or similar equipment.

B. Milogranite fertilizer may be applied at a rate of 4 lbs/1000 sq. feet.

C. Seeding and hydroseeding should be done immediately flowing final topsoil application but not after September 15, unless irrigated. Acceptable mulch materials include small grain hay or straw. All topsoiled areas shall be mulched immediately after seeding to a minimum surface area coverage of 90%.

D. Northeast Wetland Diversity Mix seed mixture to be applied within the emergent marsh area at a rate of 4.0 lbs/acre: Emergent Marsh Wetland seed mixture species as follows (Also See Planting Specs on Sheet 1 of 2 of the Mitigation Concept Plan)

SPECIES	**SCIENTIFIC NAME**
Green bulrush	*Scirpus atrovirens*
Soft rush	*Minulus regens*
Fox sedge	*Carex vulpinoidea*
Ditch stone crop	*Penthorum sedoides*

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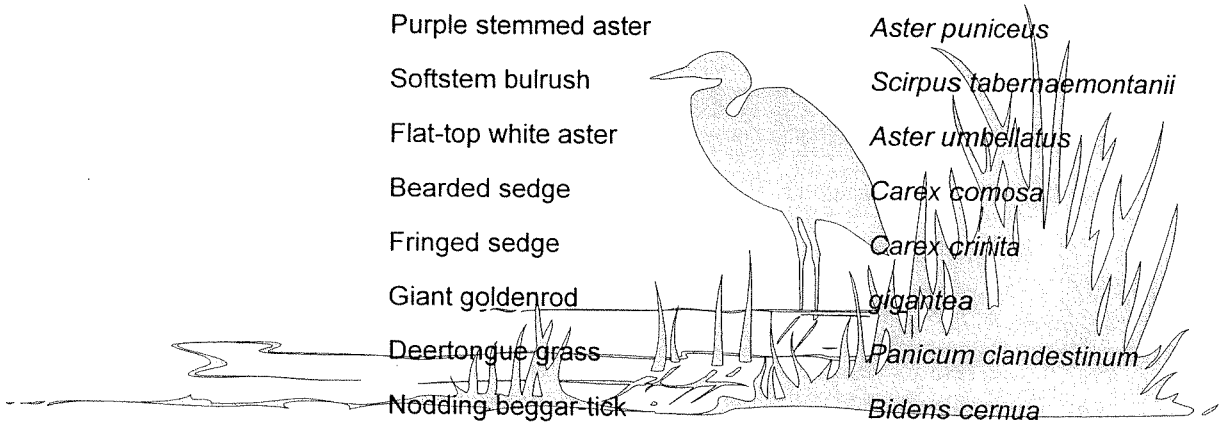
D. (continued)

SPECIES	***SCIENTIFIC NAME***
Reed meadow grass	*Glyceria grandis*
Blue vervain	*Verbena hastata*
Common boneset	*Eupatorium perfoliatum*
Rice cutgrass	*Leersia oryzoides*
Canada Manna grass	*Glyceria canadensis*
Common sneezeweed	*Helenium autumnale*
Joe-pye weed	*Eupatorium maculatum*
New England aster	*Aster novae-angliae*
Water plantain	*Alisma plantago-aquatica*
Goldenrod	*Euthamia graminifolia*
Rough goldenrod	*Solidago rugosa*
Straw colored flatseed	*Cyperus strigosus*
Purple stemmed aster	*Aster puniceus*
Softstem bulrush	*Scirpus tabernaemontanii*
Flat-top white aster	*Aster umbellatus*
Bearded sedge	*Carex comosa*
Fringed sedge	*Carex crinita*
Giant goldenrod	*gigantea*
Deertongue grass	*Panicum clandestinum*
Nodding beggar-tick	*Bidens cernua*
Water parsnip	*Sium suave*
Small fruited bulrush	*Scirpus macrocarpus*
Water hemlock	*Cicuta maculata*
Wild rye grass	*Elymus canadensis*
Devil's beggar tick	*Bidens frondosa*
Purple stemmed angelica	*Angelica atropurpurea*
Water dock	*Rumex verticillatus*
Shallow sedge	*Carex lurida*
Pennsylvania smartweed	*Polygonum pennsylvanicum*



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D. (continued)

SPECIES	SCIENTIFIC NAME
Swamp milkweed	*Asclepias incarnata*
Riverbank wild rye	*Elymus riparius*
Hop sedge	*Carex lupulina*
Blue flag iris	*Iris versicolor*

CLUSTER PLANTINGS:

Rhizomatous plant materials used in the emergent marsh habitat shall be planted when the mitigation basin has reached full water level capacity, likely the spring of the year following construction, to permit establishment of water levels on the wetland site. These species are to planted in clusters (groups) along the outer ring of the emergent marsh areas as indicated on Sheet 2 0f at elevations 0.25 feet below the lowest wet meadow/scrub/shrub elevation. The areas of cluster plantings will be staked in the mitigation area as reference for planting the following spring. Insure that stakes are tall enough to extend above the water column. Rhizomes shall be hand-planted in the mud substrate as defined below: Also see Sheet 2 of 3 for this species list and planting locations.

SPECIES	SCIENTIFIC NAME	PLANT SPACING
Water plantain	*Alisma plantago*	Rhizome, 6 ft. on center
Arrow Arum	*Peltandra virginica*	Rhizome, 6 ft. on center
Marsh marigold	*Caltha palustris*	Rhizome, 6 ft. on center
Lady's thumb	*Polygonum persicaria*	Rhizome, 6 ft. on center
Pickerlweed	*Pontederia cordata*	Rhizome, 6 ft. on center
Skunk cabbage	*Symplocarpus foetidus*	Rhizome, 6 ft. on center
Sweetflag	*Acorus calamus*	Rhizome, 6 ft. on center
Swamp milkweed	*Asclepias incarnata*	Rhizome, 6 ft. on center
Yellow iris	*Iris pseudacorus*	Rhizome, 6 ft. on center
Blue flag iris	*Iris versicolor*	Rhizome, 6 ft. on center
Cardinal flower	*Lobelia cardinalis*	Rhizome, 6 ft. on center

NON-WETLAND/TRANSITIONAL ZONE SEEDING MIXTURE:

SPECIES	SCIENTIFIC NAME	SEEDING RATE
Meadow fescue	*Festuca pratensis*	20 lbs/acre
Redtop grass	*Agrostis alba*	3 lbs/acre
Annual rye	*Lolium*	20 lbs/acre

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C. MONITORING SCHEDULE

Monitoring of the mitigation areas will be conducted for five years following the first full growth cycle. During the five year period, WET is proposing to assess the success of the mitigation creation during the second and third growing seasons in accordance with accepted USACE procedures. The purpose of the monitoring will be to determine if the plant community in the mitigation area has become dominated by FAC, FACW and OBL vegetation species. A per cent areal cover estimate of the herbaceous layer will be conducted using a random quadrat test to determine if an 85% percent dominance of FACW - OBL species cover of the mitigation area has developed.

Within the mitigation creation area, soil and hydrology will also be monitored to determine if soil saturation/inundation conditions occur for a duration long enough to promote the development of hydric soil characteristics and hydrophytic vegetation. The soils should exhibit a higher degree of saturation within the upper 12 inches of the A-B Horizon. Ponding and saturation to the surface should be evident for a longer duration during the growing season.

That within 30 days after construction of the mitigation area is completed the an as-built, to scale, survey shall be conducted. The survey will define constructed grades and elevations.

A list of all planted material will be provided which will include the source of vegetation materials used, type of material, i.e. bare root, container stock, root stock and an community type map showing the location and size of community within the wetland.

In addition to vegetation and hydrology information, each monitoring report will contain a summary of wildlife activity in or adjacent to the mitigation wetland areas. Fixed station mitigation site photographs will accompany each report.

Purple loosestrife and common reed grass (*Phragmites australis)* are exotic, invasive species which can quickly become established in wetland areas. These undesirable species must be removed, either by hand pulling of young plants, by applying a commercial herbicide or through biological control. The broad-leaved herbicide which could be used is Rodeo (active ingredient, glyphosphate 53.5%). This herbicide is approved for use in or near fresh water wetlands.

Addition attempts at controlling purple loosestrife can be through the use of biological methods. Two species of beetles, *Galerucella calmeriensis* and *G. pusilla* have been found to be successful as a natural control. The beetles are available through outside sources and will be applied if other control methods fail.

The client agrees to conduct remediation work within the wetland mitigation area if it is determined by the USACE that corrective measures are warranted.